



EPA Tools and Resources: Safer Choice

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Outline



- Introduction to the Safer Choice program
- Appeal of the label
- Safer Choice-labeled products
- Standard behind the label
- Safer Chemical Ingredients List
- How you can be part of Safer Choice

The Safer Choice program



- Encourages green chemistry
 - consumers & purchasers
 - product manufacturers
 - chemical manufacturers
 - retailers
- Focus is safer chemistry
- For all ingredients in the supply chain
- Leverages EPA's expertise in evaluating chemicals



Appeal of the Safer Choice label



- Verification by a trusted government agency that products contain only safer chemical ingredients and that they:
 - Are safer for families, pets, communities, and the environment
 - Are safer for workers and work places
 - Perform
- An appealing label that purchasers can trust
 - Facilitates rapid decision-making



Safer Choice-labeled Products



www.epa.gov/saferchoice/products

- More than 2,000 labeled products from 500 partners
 - ~ **700** Retail
 - >**1,300** Industrial & Institutional



Safer Choice Product Types



- **Facility/Household Cleaning**
 - All-Purpose Cleaners, Appliance Cleaners & Rinse Aids
 - Automatic Dishwasher Products
 - Carpet Cleaners & Floor Care Products
 - Degreasers
 - Dish Detergents & Soaps
 - Granite/Stone/Wood/Leather Cleaners
 - Kitchen/Countertop Cleaners
 - Laundry Detergents, Fabric Softeners & Pre-Treaters
 - Toilet Bowl Cleaners
 - Tub/Tile Cleaners
 - Window/Glass Cleaners
- **Automotive & Outdoor**
 - Aircraft Cleaning Products
 - Athletic Field Paint
 - Car Care Products
 - Deicers
 - Dust Control Products
 - Graffiti Removers
 - HVAC Maintenance
 - Marine/RV Cleaners
 - Outdoor Furniture Cleaners
 - Parts Washers
- **Health & Beauty**
 - Hand Soaps
- **Pet Care Products**
 - Pet Shampoos
 - Carpet Cleaners
 - Laundry Products
 - Dish Detergents
 - Odor Removers

The Standard Behind the Safer Choice Label



To use the label products must:

- Meet the Safer Choice Standard
 - Every chemical ingredient is reviewed for human health and environmental safety
 - Product level requirements include: performance, packaging, and ingredient disclosure
- Be covered under a Partnership Agreement between the manufacturer and EPA
 - Renewed every 3 years
- Undergo annual audits

<http://www.epa.gov/saferchoice/standard>

The Standard Behind the Safer Choice Label (cont'd)



- Developed through multi-stakeholder process
- Aligned with low concern thresholds under the TSCA New Chemicals program
- Supplemented with thresholds from the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals to provide transparency
- Protective of both human health and the environment

Safer Choice Chemical Hazard Endpoints



Human Health Effects

- Carcinogenicity
- Mutagenicity
- Reproductive and developmental toxicity
- Neurotoxicity
- Repeated dose toxicity
- Respiratory sensitization
- Skin sensitization
- Others

Environmental Fate and Toxicity

- Persistence
- Bioaccumulation
- Degradation products
- Eutrophication
- Aquatic toxicity
- Others

Ingredient-Level Criteria



- Every chemical is evaluated per ingredient class criteria
 - No *de minimis* for added ingredients
 - Impurities, residuals, preservatives, and stabilizers are all considered
 - Every material, including fragrance material, must be disclosed

Ingredient-Level Criteria



- Master criteria
 - <https://www.epa.gov/saferchoice/safer-choice-master-criteria-safer-chemical-ingredients>
- Functional-class criteria
 - Chelating and sequestering agents
 - Colorants, polymers, preservatives, and related chemicals
 - Enzymes and enzyme stabilizers
 - Fragrances
 - Oxidants and oxidant stabilizers
 - Processing aids and additives
 - Solvents
 - Surfactants

Human Health Criteria Example



- Safer Choice uses established precedents to designate “low-concern”
- The New Chemicals Program (NCP) and GHS are examples
- One NCP-based threshold for low concern: *mammalian reproductive/developmental toxicity test values of greater than 250 mg/kg/day (via the oral route).*

Safer Choice Environmental Criteria



≤1 ppm	without products of concern ³
>1 ppm and ≤10 ppm	Biodegradation ² occurs within a 10-day window without products of concern ³
>10 ppm	Biodegradation ² occurs within 28 days without products of concern ³

1. In general, there is a predictable relationship between acute aquatic toxicity and chronic aquatic toxicity for organic chemicals (i.e., chemicals that have high acute aquatic toxicity also have high chronic aquatic toxicity). Since acute aquatic toxicity data are more readily available, the Safer Choice Criteria use these data to screen chemicals that may be toxic to aquatic life (see Sections 5.9 and 6.8 of the [Safer Choice Master Criteria for Safer Ingredients](#)).
2. Generally, >60% mineralization (to CO₂ and water) in 28 days (see Sections 5.9 and 6.8 of the [Safer Choice Master Criteria for Safer Ingredients](#)).
3. Products of concern are compounds with high acute aquatic toxicity (L/E/IC50 =10 ppm) and a slow rate of biodegradation (greater than 28 days).

Safer Chemical Ingredients List



www.epa.gov/saferchoice/safer-ingredients

- Living list of **800+** safer chemicals that meet EPA's Safer Chemical Criteria
- Continually expanding by ~100 chemicals/year
- Uses
 - Research whether proposed formulations might be eligible for Safer Choice
 - Sustainable chemistry measure for products not carrying the Safer Choice label
 - Highlight innovation and meet demand for safer chemicals

Safer Chemical Ingredients List



Safer Chemical Ingredients List

- The listed chemicals are safer alternatives, grouped by their [functional-use class](#).[†]
- Chemicals are marked as a [green circle](#), [green half-circle](#), [yellow triangle](#), or [grey square](#).[‡]
- This list includes many of the chemicals evaluated through the Safer Choice Program. It does not include confidential chemicals. There may be chemicals not included in this list that are also safer.
- Some of the listed chemicals may not be on the [TSCA inventory](#) and are not authorized/allowed for TSCA uses. Those considering TSCA uses for these chemicals should check whether such use is authorized. Chemicals not listed on the TSCA inventory are not authorized. A warning box that appears upon clicking the hyperlinked CAS RN in the table below.

New Look!

◆ Please Select: [All Functional Use Classes](#)

◆ or Select a Functional Use Class:

- [Antimicrobial Actives](#)
- [Chelating Agents](#)

Chelating Agents Clear Options

Note: When a functional use category is selected, the search above will only apply to the chemicals assigned to this functional use. To select a different functional use, please scroll up.

Showing 25 entries

Code	Common Name	TSCA Registry Number	Functional Use
	2-hydroxy-2-(2-hydroxy-1-hydroxyethyl)acetic acid (1-1)	16382-08-0	Chelating Agents
	2-hydroxy-2-(2-hydroxy-1-hydroxyethyl)acetic acid sodium salt (1-1)	16442-16-2	Chelating Agents

New Search Bar!

- [Specialized Industrial Chemicals](#)
- [Surfactants](#)
- [Uncategorized](#)

◆ Search: Name or CAS RN

From 450 to 824 chemicals in four years

Safer Chemical Ingredients List



New
Table!

Clear Options

Chelating Agents

Note: When a functional use category is selected, the search above will only apply to the chemicals assigned to this functional use. To select a different functional use, please [scroll up](#).

Show entries

Code	Common Name	CAS Registry Number	Functional Use
	2-Butenedioic acid (2Z)-, ammonium salt (1:?), homopolymer, hydrolyzed, sodium salts	181828-06-8	Chelating Agents
	Alanine, N,N-bis(carboxymethyl)-, sodium salt (1:3)	164462-16-2	Chelating Agents
	Aspartic acid, N-(1,2-dicarboxyethyl)-, tetrasodium salt	144538-83-0	Chelating Agents
	Citric acid, anhydrous	77-92-9	Antimicrobial Actives; Chelating Agents; Processing Aids and Additives
	D-Gluconic acid	526-95-4	Chelating Agents; Processing Aids and Additives



Success of the New Label



- *Consumer Reports (May 2015):* “Why We Like the Label”
- *Recent Survey by a Leading Retailer:*
 - Majority of shoppers would purchase a product to try it solely because it carries the Safer Choice label
- Increasing presence in federal purchasing



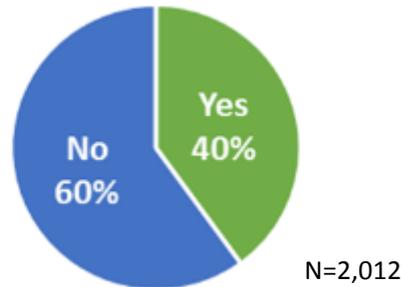
Survey of Consumer Awareness



In a survey of 2,000+ adult U.S. residents in February 2016:

- 40% of consumers reported familiarity with the program.

Are you familiar with a labeling program implemented by EPA that enables consumers to select products...safer for people, families, and pets?

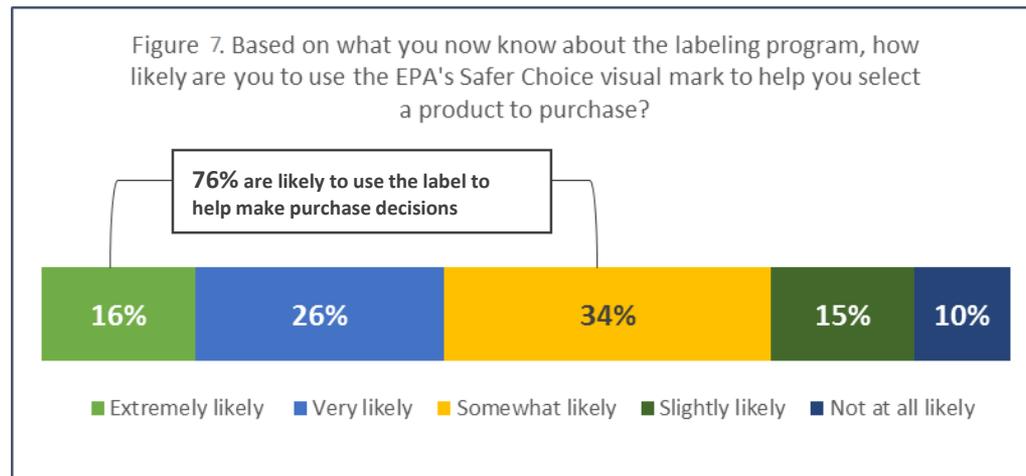


- 35% of consumers say they have seen the Safer Choice label on store shelves.

Consumer Desire to use Safer Choice



- **76%** of consumers... responded that they would use the Safer Choice label to inform purchasing decisions.
 - **83%** of parents...
 - **86%** of millennials...



Safer Choice Outreach



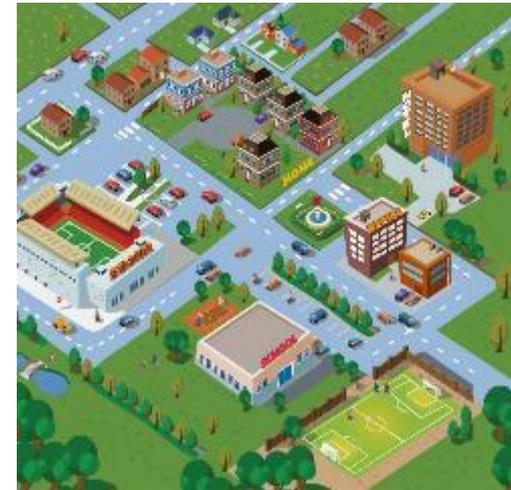
- Two campaigns each year
 - Consumer: Spring Cleaning
 - I & I: Back-to-School
- Other outreach through the year



Participating in Safer Choice



- **Product Manufacturers**
 - Have your products approved to carry the label.
- **Advocates**
 - Encourage use of safer products.
- **Communities and Governments**
 - Identify safer products that can be used in buildings, schools, and offices.
- **Everyone**
 - Look for the Safer Choice label!



Getting the word out



epa.gov/saferchoice

- Collaborate with EPA to encourage use of Safer Choice-labeled products
- One simple way to get the word out: Safer Choice live Twitter feed

[#EPASaferChoice](https://twitter.com/EPASaferChoice)

Find Safer Products

- Browse the Full Product Listing
- Find Safer Choices to Use in Your Community

Safer Chemical List

- Safer Chemical Ingredients List (SCIL)
- How to List on SCIL

The Safer Choice Label

- Learn About Safer Choice
- Partner of the Year Awards
- Resources for Manufacturers
- Safer Choice Standard

Related Programs

- Design for the Environment (DfE)
- Alternatives Assessments
- DfE Life-Cycle Assessments
- DfE Workplace Best Practices
- DfE for Pesticides

#EPASaferChoice

CleanGrids (@CleanGrids) Retweeted
Get safe products with the #EPA Safer Choice label. Use it to make a safer choice for your family. epa.gov/saferchoice

EPASaferChoice (@EPASaferChoice)
Pet care products with the #EPA Safer Choice label make it easy to make a safer choice for

Thank you! Questions?



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